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EXAMINER	
CHAKOUR, ISSAM	
ART UNIT	PAPER NUMBER
2617	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/582,544	MATSUHASHI, KEIICHI	
	Examiner	Art Unit	
	ISSAM CHAKOUR	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 August 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,6,8 and 9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,6,8 and 9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *1st page of AF amendment*.

DETAILED ACTION

This office action is in response to the argument and remarks made by the applicant filed on 08/03/2009. The applicant amended claims 1, 4, 6, 8, and 9 and cancelled claims 3, 5, and 7. The office action considered claim 9 amendment and is now in a proper form to overcome the rejection under 35 U.S.C 101. Rejection of claim 9 under 35 U.S.C 101 is withdrawn.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.,* 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1, 2, 4, 6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chavez (US 5,550,896) in view of Rune (USPPA 6,212,390).

4. Regarding claim 1, Chavez discloses a roaming system comprising: one or more

controllers (e.g. switching node, see Column 3, lines 15-16) provided for each of zones that constitute a wireless network; and a server (e.g. the mobility management application and network management systems, see Column 4, lines 21 and 31 respectively) communicatively connected to the controllers in the zones, wherein each of the controllers comprises storage means that stores (see Column 3, lines 27) identification information or authentication information (see Column 3, lines 24) given to wireless terminals for receiving a service, the wireless terminals being registered with the zone in which the controller resides, and each controller operates to detect the identification information on a wireless terminal from the storage means when a request for the service is received from the wireless terminal, and to provide the service to the wireless terminal if the identification information is detected or to issue a query or request for checking outside (from switching node 110 to mobility management application or network management system depending on the hierarchy) for the presence of the identification information (an integral part of the TSP, see column 4, line 19-20) if the identification information is not detected (see Column 4, lines 52-59); and the server is adapted to maintain information indicating which controller in which zone stores the identification information on the wireless terminals, and the server operates to, on receiving the query, detect a controller that stores the identification information on the wireless terminal for which the identification information is not detected, to communicate with the detected controller to confirm the presence of the identification information (See column 4, lines 61-65) on the wireless terminal which identification information is not detected, and to allow the controller that has issued the query to

provide the service to the confirmed wireless terminal (see Column 4, lines 24-31 and lines 45-65).

Chavez does not teach explicitly the server such that it operates to prohibit provision of the service to the confirmed wireless terminal if the query is received from a controller in a particular zone. However, Rune teaches prohibiting or restricting provision of service to a wireless terminal if it is determined by signaling between the server (e.g. GRAN) and the wireless terminal that it is outside a particular zone (See column 9 lines 18-36). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the limitations taught by Rune in Chavez's invention because in a roaming system, there is an interface function responsible for authenticating and deciding the provision or prohibition of service because when the user moves to a site outside his/her assigned controller there must be a decision interface that tests for authentication of the user and decides the provision or prohibition of the service depending on the contract or the user profile, else the service will not be provided outside the region of coverage of the assigned controllers.

5. In claim 2, Chavez in view of Rune discloses the roaming system according to claim 1, Chavez further teaches the system wherein the server is integrated with one of the controllers (see Column 4, lines 16-17).

6. Regarding claim 4, Chavez discloses a mobile communication system that allows access to a single directory information tree (e.g. network management systems, see

Column 4, line 30 and item 115 in figure 1) from a plurality of directory servers (e.g. the mobility management application) corresponding to a plurality of sites in a mobile communication network, and comprises a plurality of authentication controllers (e.g. switching nodes, see Column 3, lines 14) provided in the respective sites for authenticating mobile communication terminals that request a service at each site, and wherein each of the plurality of authentication controllers comprises:
search request generation means that acquires identification information on a mobile communication terminal and generates a search request directed to the directory server when a request for a service is received from the mobile communication terminal;
search request transmission means that transmits the search request generated by the search request generation means to the directory server in the corresponding sites; and
authentication processing means that determines whether or not to permit provision of the service to the mobile communication terminal based on a search result acquired from the directory server (see Column 3, lines 6-26. Even though the feature of permission or denial of service based on search results is not explicitly mentioned, it is inherent in roaming systems as it allows the service provider to selectively provide the service based on their profile and initial selection of plans), and wherein each of the plurality of servers comprises: storage means that stores identification information given to mobile communication terminals for receiving a service, the mobile communication terminals being registered with the site corresponding to the directory server;
identification information detection means that detects, from the storage means, the identification information on a mobile communication terminal specified in the search

request from the authentication controller or in the search request redirected from a directory server corresponding to another site; search request redirection means that redirects the search request from the authentication controller to a directory server located above or below (see Column 16, lines 6-13) in the directory information tree among the directory servers corresponding to other sites when the identification information on the mobile communication terminal is not detected by the identification information detection means; and search result provision means that provides a search result indicating success in detection of the identification information to the authentication controller when the identification information on the mobile communication terminal is detected in the other directory server to which the search request has been redirected by the search request redirection means, or in the identification information detection means, wherein the authentication processing means operates to determine to permit provision of the service to the mobile communication terminal when the search result indicating success in detection of the identification information on the mobile communication terminal is acquired from the directory server (see Column 3, lines 23-42 and claim 7) wherein each directory server comprises reference information storage means that stores address information on another directory server located above or below in the directory information tree (See claim 7, Column 22, line 9-19); and the search request redirection means operates to refer to the address information stored in the reference information storage means and to redirect the search request to the other directory server located above or below in the directory information tree (See claim 7, Column 21, line 53-59). Note that the

communication and request messages for authentication between switching nodes entail that each switching nodes has addresses of others above or below in the hierarchy by which the communication is possible, thus this feature is inherent).

7. Regarding claims 6, 8, and 9 Chavez teaches a mobile communication system that allows access to a single directory information tree having a hierarchical tree structure from a plurality of server apparatuses, wherein each of the plurality of server apparatuses comprises:

entry management means that stores entries in a directory provided in a subtree in the directory information tree, an attribute value of each entry being identification information given to any one of the mobile communication terminals which are able to provide a service in a mobile communication network (See column 4, lines 62-65 and column 9, lines 16-39);

Identification information detection means that detects the identification information on a mobile communication terminal among the attribute values of the entries stored in the directory by the entry management means (column 15, lines 59-61);

Search request transmission means that transmits a predetermined search request to another server apparatus located above or below in the directory information tree when the identification information or the authentication information on the mobile communication terminal is not detected by the identification information detection means (See column 15, line 36 and lines 59-61);

and service provision control means that allows provision of the service to the mobile

communication terminal when the identification information on the mobile communication terminal is detected in the other server apparatus to which the search request has been transmitted by the search request transmission means, or in the identification information detection means, and that prohibits provision of the service to the mobile communication terminal when no other server apparatus is located above or below in the directory information tree or when the identification information on the mobile communication terminal is not detected in the other server apparatus to which the search request has been transmitted by the search request transmission means (See column 15, line 27-29) wherein each server apparatus comprises reference information storage means that stores address information on another server apparatus located above or below in the directory information tree (See claim 7, Column 22, line 9-19); and wherein the search request transmission means operates to refer to the address information stored in the reference information storage means and to transmit the search request to the other server apparatus located above or below in the directory information tree (See claim 7, Column 21, line 53-59).

Response to Arguments

The applicant submitted that the office action didn't provide a suggestion to the title since the disclosed title is not descriptive. The examiner suggests title that at least hints to the objective of the invention for example "Roaming system control method for hierarchically structured mobile communication system".

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Regarding claim 4, the applicant submitted that anticipation cannot be maintained against the independent claims 4 and 6 as amended. The examiner respectfully disagrees. The applicant particularly argues that the present application differs or distinguishes from the prior art and presents technical features that are asserted to bring specific technical advantages as in the specification. However, although the claims are interpreted in light of the specification and that the objectives attempted of the invention described in the specifications are examined and considered; limitations from the specifications are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore, the applicant submitted that the roaming system which comprises a plurality of controllers disposed in respective zones and a server connected to the controllers, each of the controllers operates to search from its own storage means identification information of a wireless terminal requesting a service to the controller. Similarly however, in Chavez the roaming systems has a plurality of controllers a function of which is performed by the switching nodes, the switching nodes are disposed in respective zones, resident zone and non-resident zones and a server a function of which is found to be performed by NMS, the latter is connected to the plurality of switching nodes and each switching node is operable to search from its own storage means identification or authentication information of a wireless terminal requesting a service (See claim 7). When the request to check for registered user whose ID is stored at the home location switching node in different switching nodes, the switching node refers to the switching node that is above of below in the hierarchical

structure or directory tree, the reference information has information authenticating and identifying the PCS or wireless terminal. Note that each switching node has a database/directory list or a mobility table of registered users. The mobility table of each switching node maintains registration and reference information of wireless terminals having been served. In another word, this allows the system to search and refer to switching nodes in the hierarchy in order to retrieve the authenticating information in later attempts of registration by the PCS or the wireless terminal. This is consistent with the steps disclosed in claim 4 (See column 17 lines 8-15, lines 18-22 and column 18 lines 59-65).

The applicant asserted in page 14 in the remarks that in Chavez the NMS does not perform the operation as made in the claimed invention for the processing of the authentication information, he adds that the NMS does not communicate with specific switching node to instruct the specific switching node to provide any service to any PCS telephone. The examiner respectfully disagrees, and acknowledges the applicant that nowhere in claim 4, it is claimed that there is a authentication information processing and that such processing is made by the server such it instructs a specific switching node to provide any service to any PCS telephone. Rather what is claimed is "search request transmission means that transmits the search "request generated by the search request generation means to the directory server in the corresponding sites" and that "each directory server comprises reference information storage means that stores address information on another directory server located above or below in the directory information tree", Chavez's system at least for the cited paragraph does similarly so

(See column 9 lines 3-8 and lines 11-15)

Claims 6, 8, and 9 contains similar features, limitations and corresponding steps as in claims 1 and 4, and therefore are found to be equally deficient due to the aforementioned reasons.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISSAM CHAKOUR whose telephone number is (571) 270-5889. The examiner can normally be reached on Monday-Thursday (8:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Perez Rafael can be reached on (571) 272-7915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/I. C./
Examiner, Art Unit 2617

/Rafael Pérez-Gutiérrez/
Supervisory Patent Examiner, Art Unit 2617